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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of

Docket No: Q63636

Walter EEVERS, *et al.*

Appln. No.: 09/818,936

Group Art Unit: 1771

Confirmation No.: 9629

Examiner: Eilizabeth M. COLE

Filed: March 28, 2001

For: WATER-PERMEABLE ADHESIVE TAPE

SUBMISSION OF APPELLANT'S BRIEF ON APPEAL

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an original and two copies of Appellants' Brief on Appeal. A check for the statutory fee of \$330.00 is attached. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "L. Raul Tamayo".

L. Raul Tamayo

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WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: February 10, 2004



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APPELLANTS' BRIEF ON APPEAL UNDER 37 C.F.R. § 1.192

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This is an appeal from the decision of the Examiner in the final Office Action mailed July 10, 2003, finally rejecting Claims 1-9.

A Notice of Appeal was filed December 10, 2003, making this Brief on Appeal due on February 10, 2004.

In accordance with the provisions of 37 C.F.R. § 1.192, Appellants submit the following:

I. REAL PARTY IN INTEREST

The real parties in interest are Nitto Denko Corporation and Nitto Europe N.V., the assignees of the present application. The assignment was recorded on July 9, 2001, at reel 011961, frame 0786.

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II. RELATED APPEALS AND INTERFERENCES

Appellants, Appellants' counsel, and the assignees of this application are not aware of any other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-9 are pending.

The present application was filed with Claims 1-8 on March 28, 2001. An Amendment under 37 C.F.R. § 1.111 was filed January 3, 2003, amending Claim 1 and adding new Claim 9.

The claims appealed are all the pending claims, *i.e.*, Claims 1-9, which are set forth in their entirety in the Appendix attached herewith.

IV. STATUS OF AMENDMENTS

An Amendment Under 37 C.F.R. § 1.116 was filed subsequent to the final Office Action, on October 10, 2003. The Amendment sought to amend Claim 9 to recite a method, rather than a "use." The Amendment has not been entered.

The Advisory Action mailed November 10, 2003, indicates that the proposed amendment to Claim 9 has not been entered because it allegedly raises new issues that would require further search and/or consideration, and it is not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal. In addition, the Advisory Action indicates that the remarks filed along with the Amendment of October 10th have been considered but do not place the application in condition for allowance because the Examiner did not deem the remarks persuasive to overcome the rejections.

V. SUMMARY OF THE INVENTION

Appellants' invention provides a water-permeable adhesive tape for processing semiconductor wafers and/or semiconductor-related materials. Page 2, third full paragraph. The

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/818,936

tape comprises at least one base film and an adhesive. The at least one base film possesses perforations and has a cavity ratio of 3.0 to 90%. The adhesive does not have perforations and is applied on one surface of the base film. Page 6, lines 1-2, and page 8, lines 4-7.

The tape enables the processing of very thin semiconductor wafers or materials without leading to any processing problems, such as chipping or other defects of the chips or IC parts. Page 2, second full paragraph. The tape simultaneously ensures good adherence of the wafer or material thereon and prevents delamination of the chips or parts therefrom during the processing step.

Claim 1 is drawn to a water-permeable adhesive tape for processing semiconductor wafers and/or semiconductor-related materials. The tape comprises at least one base film which possesses perforations and has a cavity ratio of 3.0 to 90%. The tape also comprises an adhesive not having perforations applied on one surface of the base film.

Claim 2 is drawn to an embodiment of the invention, wherein the base film comprises a synthetic resin or a non-woven fabric. Page 3, fourth full paragraph.

Claim 3 is drawn to an embodiment of the invention, wherein the size of the perforations is from 0.001 to 3.0 mm². Page 4, second full paragraph.

Claim 4 is drawn to an embodiment of the invention, wherein the adhesive comprises a rubber-based or acrylic-based adhesive. Page 6, second full paragraph.

Claim 5 is drawn to an embodiment of the invention, wherein the adhesive is pressure-sensitive, light-sensitive and/or heat-sensitive. Page 6, fourth full paragraph.

Claim 6 is drawn to an embodiment of the invention, wherein the tape has an elongation of more than 10%. Page 9, first full paragraph.

Claim 7 is drawn to an embodiment of the invention, wherein the tape has a tensile strength of more than 0.1 N/20 mm. Page 9, second full paragraph.

Claim 8 is drawn to an embodiment of the invention, wherein the tape has an adhesive strength of 0.15 to 10 N/20 mm. Page 9, last full paragraph.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/818,936

Claim 9 is drawn to the use of the water-permeable adhesive tape for processing semiconductor wafers and/or semiconductor related materials.

VI. ISSUES

The issues presented for review are:

(1) whether the Examiner erred in rejecting Claims 1-3 and 5-8 under 35 U.S.C. § 103(a) as being unpatentable over Japan Laid-open No. 63-136527 (hereinafter, "JP '527") in view of U.S. Patent No. 4,702,788 to Okui (hereinafter, "Okui"); and

(2) whether the Examiner erred in rejecting Claims 2 and 4 under 35 U.S.C. § 103(a) as being unpatentable over JP '527 in view of Okui as applied to Claims 1-3 and 5-8, and further in view of Japan Laid-open No. 9-272850 (hereinafter, "JP '850").

Appellants are not appealing the 35 U.S.C. §101 rejection of Claim 9, which is directed to a "use." Appellants, however, are appealing Claim 9 insofar as it depends from Claim 1, and Claim 1 has been rejected, as indicated above. Appellants will cancel Claim 9 or further modify it pending the decision on appeal.

VII. GROUPING OF CLAIMS

The claims do not stand or fall together.

For purposes of this appeal, Claims 1-3 and 5-8 are grouped together and are grouped separately from Claims 2 and 4.

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VIII. ARGUMENTS

(1) §103 Obviousness Rejection of Claims 1-3 and 5-8

Claims 1-3 and 5-8 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over JP '527 in view of Okui.

The Examiner asserts that JP '527 discloses an adhesive tape for mounting semiconductors, comprising a resin sheet, wherein the sheet comprises a plurality of fine holes having a diameter of about 0.5 to 2.0 mm.

The Examiner concedes that JP '527 does not explicitly teach the cavity ratio of 3.0 to 90 percent recited in Appellants' Claim 1. The Examiner, however, argues that because JP '527 purports to teach that fine holes in the adhesive tape prevent the peeling of a semiconductor substrate during working, and also make the adhesive sheet easy to be peeled, the reference recognizes the presence of the fine holes as a result effective variable. Therefore, the Examiner concludes that one skilled in the art would have merely optimized the cavity ratio through the process of routine experimentation, in order to produce a sheet having the optimum resistance to peeling of the semiconductor substrate during use, yet allow for easy peeling of the pressure-sensitive adhesive.

The Examiner concedes that JP '527 does not teach the elongation, tensile strength and adhesive strength recited in Claims 6-8, respectively. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to have optimized the strength and elongation of the tape motivated by the desire to produce a tape having the necessary strength and elongation properties required in tapes for mounting semiconductors.

The Examiner concedes that JP '527 does not disclose the claimed "adhesive not having perforations." The Examiner, however, asserts that Okui discloses forming carrier tapes for electronic applications by perforating a substrate and then applying an adhesive backing to the perforated substrate. The Examiner concludes that it would have been obvious to have applied the adhesive in JP '527 so that it was continuous and not perforated as disclosed by Okui.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/818,936

According to the Examiner, Okui's application method was a known alternative, and it would have simplified the perforating process because only the substrate would have to be perforated.

The Error in the Rejection

The error in the rejection is that the acknowledged prior art JP '527 and Okui do not establish a *prima facie* case of obviousness, either alone or in combination.

Why Claims 1-3 and 5-8 are Patentable Under 35 U.S.C. § 103

Claim 1 is directed to a water-permeable adhesive tape for processing semiconductor wafers and/or semiconductor-related materials. The tape comprises at least one base film and an adhesive. The at least one base film possesses perforations and has a cavity ratio of 3.0 to 90%. The adhesive does not have perforations and is applied on one surface of the base film. Each of Claims 2-3 and 5-8 depends from Claim 1.

The teachings of JP '527 and Okui are not sufficient to render *prima facie* obvious the invention of Claim 1, for at least the following reasons:

- the water-permeable adhesive tape of Claim 1 comprises at least one base film having perforations and an adhesive that does not have perforations applied on one surface of the base film;
- JP '527 discloses a perforated adhesive sheet for the purpose of fixing a semiconductor substrate to a suction base through the direct suction of the substrate to the base;
- thus, JP '527 teaches a base film with an adhesive layer thereon, wherein the base film and adhesive layer are both perforated; and
- modifying JP '527 such that only its base film is perforated and its adhesive layer is not perforated would completely destroy the teachings of JP '527 and is impermissible.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/818,936

JP '527 discloses a pressure-sensitive adhesive sheet. Page 1 of the full English translation of JP '527, under the heading "Scope of Claim," and page 2, under the heading "Means for solving the Problems."

A person of ordinary skill in the art would understand JP '527's disclosure of an "adhesive sheet" as referring to a base film with an adhesive layer thereon, at least in light of the technical field in which the adhesive sheet of JP '527 is described. Therefore, each mention in JP '527 of an adhesive sheet is actually a reference to an adhesive sheet comprising a base film with an adhesive layer thereon.

JP '527 discloses that its adhesive sheet is perforated for the purpose of fixing a semiconductor substrate to a suction base through the direct suction of the substrate to the base. For example, at page 2 of the translation, in the last sentence of the second full paragraph under the heading "Example" (lines 19-21 of page 2), JP '527 discloses:

The semiconductor substrate is fixed not only by the adhesion of the sheet but also by direct suction of it onto the suction base through the fine holes.

As another example, at page 2 of the translation, in the first full paragraph under the heading "Effect of the Invention" (lines 39-46 of page 2), JP '527 discloses:

As described above, the present invention has effects of firmly fixing the semiconductor substrate not only by the adhesion of the sheet but also by direct suction thereof from the suction base at the time of grinding the semiconductor substrate or dicing it by through cut by the provision of the large number of fine holes,

Thus, JP '527 teaches an adhesive sheet comprising a base film with an adhesive layer thereon, wherein the base film and adhesive layer are both perforated. It is apparent from JP '527 that nothing else can be meant. The arrangement as shown in Fig. 3 is a suction device (4), and on top of the suction device (4) is an adhesive sheet (2), and adhered to the adhesive sheet (2) is the semiconductor substrate (3). Holes going through the entire thickness of the adhesive sheet

APPELLANTS' BRIEF ON APPEAL
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(2) must exist in order to obtain direct suction of the semiconductor substrate (3) to the suction base (4). Without such holes, there would be a barrier between the semiconductor substrate (3) and the suction base (4) such that no direct suction of the semiconductor substrate (3) to the suction base (4) could be achieved.

In Continuation Sheet (PTOL-303) attached to the Advisory Action mailed November 10, 2003, the Examiner asserts that "suction could still be applied through the perforations of the film layer even if the adhesive layer was not perforated."

Applicants respectfully disagree and submit that no basis in fact and/or technical reasoning to reasonably support such a determination has been advanced, nor does such a basis exist. If there are no holes through the adhesive layer, there can be no pathway between the semiconductor substrate and the suction base and, thus, no direct suction between these two parts. For direct suction to be possible, the entire adhesive sheet must have perforations, *i.e.*, both the base film and the adhesive layer must have perforations.

In view of the foregoing, modifying JP '527 such that only its base film is perforated and its adhesive layer is not perforated would completely destroy the teachings of JP '527 and is impermissible.

If the modification or combination of the prior art proposed by the Examiner would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 123 USPQ 349 (CCPA 1959). Likewise, if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 221 USPQ 1125 (Fed. Cir. 1984). In other words, the Examiner's proposed combination of the prior art cannot destroy the teachings of the prior art reference being modified.

In the present case, the Examiner is proposing to modify JP '527 by substituting the perforated adhesive sheet disclosed therein with an adhesive sheet which contains an

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
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unperforated adhesive layer. For the reasons discussed above, such a modification would completely destroy the teachings of JP '527.

In further support of Appellants' position, Appellants direct the Board's attention to the description of the prior art in JP '527.

At page 1 of the translation, in the second full paragraph under the heading "Prior Art," JP '527 discloses prior art pressure-sensitive adhesive sheets having no holes. That is, JP '527 discloses prior art adhesive sheets comprising a base film with an adhesive layer thereon, wherein both the base film and adhesive layer do not contain perforations.

As disclosed in the first full paragraph on page 1 under the heading "Prior Art," the prior art adhesive sheets that do not contain perforations are "sucked to a suction base." Thus, in the prior art disclosed in JP '527, only the adhesive sheet but not the semiconductor substrate is sucked to the suction base. The semiconductor substrate is merely held by the adhesion of the adhesive sheet. In other words, the prior art disclosed in JP '527 involved direct suction between a suction base and the adhesive sheet.

The entire purpose of the invention of JP '527 is to improve upon the prior art disclosed therein by providing holes (perforations) through the entire thickness of the adhesive sheet such that a semiconductor substrate is fixed not only by the adhesion of the sheet but also through direct suction between the suction base and the semiconductor substrate.

For at least the foregoing reasons, Appellants respectfully submit that the combination of JP '527 and Okui does not disclose or suggest the invention of Claim 1. The inventions of Claims 2-3 and 5-8 are also not disclosed or suggested by the combination of JP '527 and Okui, at least by virtue of the fact that each of Claims 2-3 and 5-8 depends from Claim 1.

(2) §103 Obviousness Rejection of Claims 2 and 4

Claims 2 and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over JP '527 in view of Okui as applied to Claims 1-3 and 5-8, and further in view of JP '850.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/818,936

The Examiner concedes that JP '527 does not disclose employing a non-woven substrate and also does not teach employing an acrylic adhesive as the adhesive layer. The Examiner asserts that JP '850 teaches that non-woven fabrics can be used as the substrate for tape and that it has excellent strength. The Examiner further asserts that JP '527 teaches acrylic adhesives as suitable for use as a pressure-sensitive adhesive (PSA). The Examiner concludes that it would have been obvious to one of ordinary skill in the art to have employed an acrylic PSA as the PSA in JP '527 and to have employed a non-woven substrate because of their art-recognized suitability for the intended purpose.

The Error in the Rejection

The error in the rejection is that the acknowledged prior art JP '527, Okui and JP '850 do not establish a *prima facie* case of obviousness, either alone or in combination.

Why Claims 2 and 4 are Patentable Under 35 U.S.C. § 103

Each of Claims 2 and 4 depends from Claim 1.

The combination of JP '527 and Okui does not disclose or suggest the invention of Claim 1, and JP '850 does not cure the deficiencies of JP '527 and Okui.

The Examiner has relied on JP '850 for the teaching of a non-woven substrate. JP '850 does not contain a teaching or suggestion that would motivate one of ordinary skill in the art to modify JP '527 by substituting the perforated adhesive sheet disclosed in JP '527 with an adhesive sheet which contains an unperforated adhesive layer. As discussed herein above, modifying JP '527 such that only its base film is perforated and its adhesive layer is not perforated would completely destroy the teachings of JP '527.

Accordingly, the inventions of Claims 2 and 4 are also not disclosed or suggested by the combination of JP '527, Okui and JP '850, at least by virtue of the fact that each of Claims 2 and 4 depends from Claim 1.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
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The present Brief on Appeal is being filed in triplicate. Unless a check is submitted herewith for the fee required under 37 C.F.R. §1.192(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

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Respectfully submitted,



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APPELLANTS' BRIEF ON APPEAL
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APPENDIX

CLAIMS 1-9 ON APPEAL:

1. A water-permeable adhesive tape for processing semiconductor wafers and/or semiconductor related materials, comprising at least one base film which possesses perforations and has a cavity ratio of 3.0 to 90%; and an adhesive not having perforations applied on one surface of the base film.
2. The water-permeable adhesive tape according to claim 1, wherein the base film comprises a synthetic resin or a non-woven fabric.
3. The water-permeable adhesive tape according to claim 1 or 2, wherein the size of the perforations is from 0.001 to 3.0 mm².
4. The water-permeable adhesive tape according to any of claims 1 or 2, wherein the adhesive comprises a rubber-based or acrylic-based adhesive.
5. The water-permeable adhesive tape according to any of claims 1 or 2, wherein the adhesive is pressure-sensitive, light-sensitive and/or heat-sensitive.
6. The water-permeable adhesive tape according to any of claims 1 or 2, having an elongation of more than 10%.
7. The water-permeable adhesive tape according to any of claims 1 or 2, having a tensile strength of more than 0.1 N/20 mm.
8. The water-permeable adhesive tape according to any of claims 1 or 2, having an adhesive strength of 0.15 to 10 N/20 mm.
9. Use of the water-permeable adhesive tape according to claim 1 for processing semiconductor wafers and/or semiconductor related materials.



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The claims appealed are all the pending claims, *i.e.*, Claims 1-9, which are set forth in their entirety in the Appendix attached herewith.

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Appellants' invention provides a water-permeable adhesive tape for processing semiconductor wafers and/or semiconductor-related materials. Page 2, third full paragraph. The

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tape comprises at least one base film and an adhesive. The at least one base film possesses perforations and has a cavity ratio of 3.0 to 90%. The adhesive does not have perforations and is applied on one surface of the base film. Page 6, lines 1-2, and page 8, lines 4-7.

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VI. ISSUES

The issues presented for review are:

(1) whether the Examiner erred in rejecting Claims 1-3 and 5-8 under 35 U.S.C. § 103(a) as being unpatentable over Japan Laid-open No. 63-136527 (hereinafter, "JP '527") in view of U.S. Patent No. 4,702,788 to Okui (hereinafter, "Okui"); and

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U.S. Appln. No.: 09/818,936

JP '527 discloses a pressure-sensitive adhesive sheet. Page 1 of the full English translation of JP '527, under the heading "Scope of Claim," and page 2, under the heading "Means for solving the Problems."

A person of ordinary skill in the art would understand JP '527's disclosure of an "adhesive sheet" as referring to a base film with an adhesive layer thereon, at least in light of the technical field in which the adhesive sheet of JP '527 is described. Therefore, each mention in JP '527 of an adhesive sheet is actually a reference to an adhesive sheet comprising a base film with an adhesive layer thereon.

JP '527 discloses that its adhesive sheet is perforated for the purpose of fixing a semiconductor substrate to a suction base through the direct suction of the substrate to the base. For example, at page 2 of the translation, in the last sentence of the second full paragraph under the heading "Example" (lines 19-21 of page 2), JP '527 discloses:

The semiconductor substrate is fixed not only by the adhesion of the sheet but also by direct suction of it onto the suction base through the fine holes.

As another example, at page 2 of the translation, in the first full paragraph under the heading "Effect of the Invention" (lines 39-46 of page 2), JP '527 discloses:

As described above, the present invention has effects of firmly fixing the semiconductor substrate not only by the adhesion of the sheet but also by direct suction thereof from the suction base at the time of grinding the semiconductor substrate or dicing it by through cut by the provision of the large number of fine holes,

Thus, JP '527 teaches an adhesive sheet comprising a base film with an adhesive layer thereon, wherein the base film and adhesive layer are both perforated. It is apparent from JP '527 that nothing else can be meant. The arrangement as shown in Fig. 3 is a suction device (4), and on top of the suction device (4) is an adhesive sheet (2), and adhered to the adhesive sheet (2) is the semiconductor substrate (3). Holes going through the entire thickness of the adhesive sheet

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/818,936

(2) must exist in order to obtain direct suction of the semiconductor substrate (3) to the suction base (4). Without such holes, there would be a barrier between the semiconductor substrate (3) and the suction base (4) such that no direct suction of the semiconductor substrate (3) to the suction base (4) could be achieved.

In Continuation Sheet (PTOL-303) attached to the Advisory Action mailed November 10, 2003, the Examiner asserts that "suction could still be applied through the perforations of the film layer even if the adhesive layer was not perforated."

Applicants respectfully disagree and submit that no basis in fact and/or technical reasoning to reasonably support such a determination has been advanced, nor does such a basis exist. If there are no holes through the adhesive layer, there can be no pathway between the semiconductor substrate and the suction base and, thus, no direct suction between these two parts. For direct suction to be possible, the entire adhesive sheet must have perforations, *i.e.*, both the base film and the adhesive layer must have perforations.

In view of the foregoing, modifying JP '527 such that only its base film is perforated and its adhesive layer is not perforated would completely destroy the teachings of JP '527 and is impermissible.

If the modification or combination of the prior art proposed by the Examiner would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 123 USPQ 349 (CCPA 1959). Likewise, if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 221 USPQ 1125 (Fed. Cir. 1984). In other words, the Examiner's proposed combination of the prior art cannot destroy the teachings of the prior art reference being modified.

In the present case, the Examiner is proposing to modify JP '527 by substituting the perforated adhesive sheet disclosed therein with an adhesive sheet which contains an

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/818,936

unperforated adhesive layer. For the reasons discussed above, such a modification would completely destroy the teachings of JP '527.

In further support of Appellants' position, Appellants direct the Board's attention to the description of the prior art in JP '527.

At page 1 of the translation, in the second full paragraph under the heading "Prior Art," JP '527 discloses prior art pressure-sensitive adhesive sheets having no holes. That is, JP '527 discloses prior art adhesive sheets comprising a base film with an adhesive layer thereon, wherein both the base film and adhesive layer do not contain perforations.

As disclosed in the first full paragraph on page 1 under the heading "Prior Art," the prior art adhesive sheets that do not contain perforations are "sucked to a suction base." Thus, in the prior art disclosed in JP '527, only the adhesive sheet but not the semiconductor substrate is sucked to the suction base. The semiconductor substrate is merely held by the adhesion of the adhesive sheet. In other words, the prior art disclosed in JP '527 involved direct suction between a suction base and the adhesive sheet.

The entire purpose of the invention of JP '527 is to improve upon the prior art disclosed therein by providing holes (perforations) through the entire thickness of the adhesive sheet such that a semiconductor substrate is fixed not only by the adhesion of the sheet but also through direct suction between the suction base and the semiconductor substrate.

For at least the foregoing reasons, Appellants respectfully submit that the combination of JP '527 and Okui does not disclose or suggest the invention of Claim 1. The inventions of Claims 2-3 and 5-8 are also not disclosed or suggested by the combination of JP '527 and Okui, at least by virtue of the fact that each of Claims 2-3 and 5-8 depends from Claim 1.

(2) §103 Obviousness Rejection of Claims 2 and 4

Claims 2 and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over JP '527 in view of Okui as applied to Claims 1-3 and 5-8, and further in view of JP '850.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/818,936

The Examiner concedes that JP '527 does not disclose employing a non-woven substrate and also does not teach employing an acrylic adhesive as the adhesive layer. The Examiner asserts that JP '850 teaches that non-woven fabrics can be used as the substrate for tape and that it has excellent strength. The Examiner further asserts that JP '527 teaches acrylic adhesives as suitable for use as a pressure-sensitive adhesive (PSA). The Examiner concludes that it would have been obvious to one of ordinary skill in the art to have employed an acrylic PSA as the PSA in JP '527 and to have employed a non-woven substrate because of their art-recognized suitability for the intended purpose.

The Error in the Rejection

The error in the rejection is that the acknowledged prior art JP '527, Okui and JP '850 do not establish a *prima facie* case of obviousness, either alone or in combination.

Why Claims 2 and 4 are Patentable Under 35 U.S.C. § 103

Each of Claims 2 and 4 depends from Claim 1.

The combination of JP '527 and Okui does not disclose or suggest the invention of Claim 1, and JP '850 does not cure the deficiencies of JP '527 and Okui.

The Examiner has relied on JP '850 for the teaching of a non-woven substrate. JP '850 does not contain a teaching or suggestion that would motivate one of ordinary skill in the art to modify JP '527 by substituting the perforated adhesive sheet disclosed in JP '527 with an adhesive sheet which contains an unperforated adhesive layer. As discussed herein above, modifying JP '527 such that only its base film is perforated and its adhesive layer is not perforated would completely destroy the teachings of JP '527.

Accordingly, the inventions of Claims 2 and 4 are also not disclosed or suggested by the combination of JP '527, Okui and JP '850, at least by virtue of the fact that each of Claims 2 and 4 depends from Claim 1.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/818,936

The present Brief on Appeal is being filed in triplicate. Unless a check is submitted herewith for the fee required under 37 C.F.R. §1.192(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/818,936



APPENDIX

CLAIMS 1-9 ON APPEAL:

1. A water-permeable adhesive tape for processing semiconductor wafers and/or semiconductor related materials, comprising at least one base film which possesses perforations and has a cavity ratio of 3.0 to 90%; and an adhesive not having perforations applied on one surface of the base film.
2. The water-permeable adhesive tape according to claim 1, wherein the base film comprises a synthetic resin or a non-woven fabric.
3. The water-permeable adhesive tape according to claim 1 or 2, wherein the size of the perforations is from 0.001 to 3.0 mm².
4. The water-permeable adhesive tape according to any of claims 1 or 2, wherein the adhesive comprises a rubber-based or acrylic-based adhesive.
5. The water-permeable adhesive tape according to any of claims 1 or 2, wherein the adhesive is pressure-sensitive, light-sensitive and/or heat-sensitive.
6. The water-permeable adhesive tape according to any of claims 1 or 2, having an elongation of more than 10%.
7. The water-permeable adhesive tape according to any of claims 1 or 2, having a tensile strength of more than 0.1 N/20 mm.
8. The water-permeable adhesive tape according to any of claims 1 or 2, having an adhesive strength of 0.15 to 10 N/20 mm.
9. Use of the water-permeable adhesive tape according to claim 1 for processing semiconductor wafers and/or semiconductor related materials.